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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,752	07/18/2003	Dave Allen Soerens	KC-18,125.6	2759

7590 12/15/2005

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EXAMINER
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JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,752

Applicant(s)

SOERENS, DAVE ALLEN

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-21 and 23-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-21 and 23-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. <u>12/05</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-10, 12-21, 23-37 are rejected under 35 U.S.C. 103(a) as unpatentable over Harada et al. US 5,853,867 in view of Gander US 3,951,893.

Regarding claims 1, 14, 25, Harada '867 discloses an absorbent comprising cationic absorbent polymer and anionic absorbent polymer fixed to a substrate through a binder, which is crosslinked during or after polymerization (column 3, lines 45-48; column 5, lines 1-10; column 8, line 54 to column 9, line 16). The claimed binder species are disclosed (columns 4-5 and 8) and disclosed temperature is less than 120 degrees (Examples). An absorbent capacity of 5 g/g is disclosed.

Harada fails to disclose anhydrous salts or capillary desiccants.

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It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a capillary desiccant in the absorbent of Harada because Harada discloses starches (see column 8, lines 27-31) and acetate (see column 4, lines 38-40), which would obviously, to one of ordinary skill, suggest an anhydrous salt or a capillary desiccant (see also instant specification, pages 18-19).

Harada fails to disclose alkoxysilane functionality.

Gander discloses polymeric composition comprising a silane crosslinked interpolymers of alkyl acrylate (first monomer) and other unsaturated monomers (second monomer) the instant range. Suitable silane acrylate crosslinking monomers include the alkoxysilane expressed in the present claims. The crosslinking occurs at drying temperature. The reference teaches the incorporation of a second monomer, which may be alkaline, acid labile, thus encompass the limitations expressed in claims (col. lines 16-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the alkoxysilane of Gander in the absorbent desiccant of Harada because Gander discloses the alkoxysilane for use in an absorbent to absorb bodily fluids (see composite products section), which is conveniently disposable (see summary).

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Regarding claims 2-3 and 5, 12-13, 15-21, 23-24, Harada discloses above 30% by weight of polymer (see column 7, lines 50-55), which would at least suggest an optimum ratio of polymer to desiccant or mole percent.

Regarding claims 4, 7, 9-10, and 31-37 the claimed binder and polymer species are disclosed (columns 4-5 and 8) and the disclosed temperature is less than 120 degrees (Examples). Gander further discloses cellulosic paper (see column 7, lines 58-60) and maleic anhydride (claim 1), which would obviously, to one of ordinary skill, suggest anhydrous salt or capillary desiccant.

Regarding claims 6 and 8, Harada discloses cationic and anionic absorbent polymer (see column 7, lines 43-45).

Regarding claims 26-30, Harada discloses various intended uses (see columns 1-2).

### ***Response to Arguments***

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M.

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Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ